

***Geum rivale* L.**
water avens
Rosaceae (Rose Family)

Status: State Sensitive
Rank: G5S2S3

General Description: Adapted from Hitchcock et al. (1961): Perennial with short to rather extensive, scaly rootstocks, the basal leaves several, somewhat rosulate, up to 12 inches long, lyrate-pinnatifid, the leaflets mostly 7-15, once or twice crenate-serrate, 1-3 of them much larger than the others, the terminal one cuneate-obovate, up to 4 inches long. Flowering stems mostly 16 to 24 inches tall, hirsute but becoming puberulent above. Cauline leaves 2-5, alternate, reduced, the stipules leafletlike, the blades pinnatifid below to deeply 3-lobed above. Inflorescence open, 3-7 flowered, cymose although alternately branched, the flowers nodding in bud but becoming erect. Calyx reddish-purple, the lobes lanceolate, acute to acuminate, about ½ inch long, erect, the hypanthium broadly cup-shaped, shorter than the sepals. Petals yellow to pinkish, mostly ⅛ inch shorter than the sepals. Stamens 100 or more. Styles strongly geniculate. Mature achenes elliptic in outline, ⅛ inch long, strongly hirsute, the lower (persistent) joint of the style ¼ to ⅓ inch long, hirsute below, glabrous above, hooked at the tip, the upper segment ultimately deciduous, sparsely hirsute, ⅛ inch long.

Identification Tips: *Geum rivale* may be confused with *G. macrophyllum* when there are no flowers. The flowering stem and sepals of *G. rivale* are red and those of *G. macrophyllum* are green. The leaves of both species are very similar.

Phenology: Flowers late June through July.

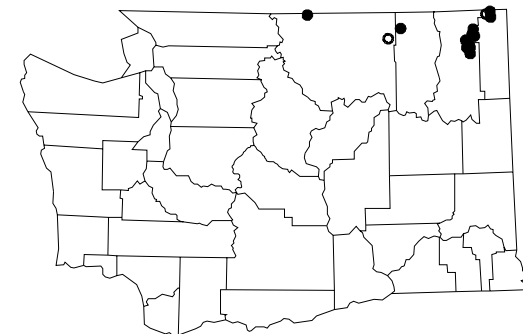
Range: Occurs from Newfoundland to British Columbia, south to New Jersey, Indiana, Missouri, South Dakota, New Mexico, and Washington. Known from Stephens, Ferry, Pend Oreille, and Okanogan counties in the Eastern Cascades and Okanogan Highlands physiographic provinces in Washington.

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Known distribution of
Geum rivale in
Washington



● Current (1980+)
○ Historic (older than 1980)

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Habitat: Wet meadows, bogs, riparian zones along perennial streams, and moist old pastures. The taxon generally does not occur under heavy shrub cover. Associated species as Washington sites variously includes *Geum macrophyllum*, *Equisetum palustre*, *Luzula campestris*, *Polemonium occidentale*, *Potentilla palustris*, *Carex utriculata*, *C. flava*, *Juncus* sp., and *Muhlenbergia glomerata*. The wetlands often also have *Betula glandulosa*, *Salix* sp. and *Thuja plicata* around the periphery. Elevation ranges from 2500 to 6400 feet.

Ecology: This species is identified as a facultative wetland species (USFWS 1988). The species occurs in a variety of light regimes, although generally not under a complete canopy.

State Status Comments: The taxon is a peripheral in Washington.

Inventory Needs: Appropriate habitats should be inventoried throughout the northeastern portion of the state.

Threats and Management Concerns: Hydrologic change and grazing are the primary threats to the species.

References:

Hitchcock, C. L., A. Cronquist, M. Ownbey, and J.W. Thompson. 1961. *Vascular Plants of the Pacific Northwest, Part 3: Saxifragaceae to Ericaceae*. University of Washington Press, Seattle. 614 pp.

U.S. Fish and Wildlife Service. 1988. National list of vascular plant species that occur in wetlands. USFWS Biological Report 88 (24).